

REMARKS

This responds to the Office Action mailed on January 3, 2007.

Each of the independent claims 1, 9, 17, 22, 27, and 32 has been amended. No claims have been canceled or added. As a result, claims 1-36 are now pending in this application.

**Rejection of Claims 1-36 Under 35 U.S.C. §103(a)
as Unpatentable over Campbell in View of Sasou and Further
in View of Nakamura**

Claims 1-36 were rejected under 35 U.S.C. §103(a) as being unpatentable over Campbell et al. (U.S. 2001/0024497 A1) in view of Sasou et al. (U.S. 5,463,208) and further in view of Nakamura et al. (U.S. 2001/0027477 A1).

First, Applicants do not admit that Campbell or Nakamura are prior art, and they reserve the right to swear behind these references in the future.

Secondly, since a *prima facie* case of obviousness has not been established, Applicants respectfully traverse this rejection.

The Examiner has the burden under 35 U.S.C. §103 to establish a *prima facie* case of obviousness. *In re Fine*, 837 F.2d 1071, 1074, 5 U.S.P.Q.2d (BNA) 1596, 1598 (Fed. Cir. 1988).

The References Do Not Teach All Claim Limitations.

Regarding claim 1, for example, Applicants assert that none of the applied references teaches the following limitation:

only if a workflow is successfully completed by a first workflow engine for an execution-requesting client, sending an explicit and delayed acknowledgement to the execution-requesting client, else assigning the workflow to a second workflow engine by sending it a work assignment message, in response to which the second workflow engine alone completes the workflow

The Examiner concedes that Campbell fails to explicitly teach sending an explicit and delayed acknowledgement to an execution-requesting client if a workflow is completed by a first workflow engine, else assigning the workflow to a second workflow engine.

Sasou appears to disclose a main CPU 102 (FIG. 1) and a series of sub-CPU's 141A, 142A-B, and 143A (FIG. 1). The plurality of sub-CPU's independently execute a series of tasks

set in advance in accordance with a predetermined sequence (see Abstract). A notification section in the last sub-CPU supplies a processing completion signal indicating completion of the series of tasks to the main CPU when the last task is completed. It is noted that each sub-CPU always performs the same unique task, and that there is just one sub-CPU to perform such unique task. It is further noted that sub-CPU 142B always sends a notification signal 30 to the next sub-CPU 143A, whether recording is successfully completed on the card 105 or not (see column 5, lines 50-58).

This is in sharp contrast to Applicants' claim 1, for example, in which a notification, in the form of an explicit and delayed acknowledgement, is sent to the execution-requesting client only if a workflow is successfully completed by a first workflow engine, otherwise assigning the workflow to a second workflow engine by sending it a work assignment message.

Applicants' method is more efficient than that of the Examiner's proposed combination of Campbell and Sasou, because in Applicants' method the execution-requesting client is not bothered with failure messages. Instead, in Applicants' method another workflow engine is assigned to process the workflow in a manner that can be completely transparent to the execution-requesting client.

The Examiner concedes that Campbell and Sasou are silent on assigning workflow to a second workflow engine by sending it a work assignment message if the first workflow is not completed. The Examiner asserts that Nakamura teaches a workflow system that determines whether the workflow/process was successfully completed or not, and if it is not completed, then identifying another terminal apparatus to send a notification to perform a work assignment.¹

Nakamura appears to disclose a computer-implemented order-processing method in which a determination is made whether a workflow/process is completed or not. If it's not completed, a second terminal apparatus is identified and notified (see Abstract). However, it is clear from a careful reading of Nakamura that, at a minimum, the underlined language of the following limitation from Claim 1 is not met by Nakamura's system or its operation:

only if a workflow is successfully completed by a first workflow engine for an execution-requesting client, sending an explicit and delayed acknowledgement to the execution-requesting client, else assigning the workflow to a second workflow engine by sending it a work assignment message, in response to which the second workflow engine alone completes the workflow

¹ Office Action, Para. 8.

In Nakamura, if the workflow is not completed, the system identifies a “participant” who is capable of inputting next and notifies the participant of the necessity of input. See the following text:

Or, if not completed, the control shifts to an input expediting facility (1001 of FIG. 10), and it identifies a participant capable of inputting next and notifies the participants of necessity of input (1002).²

Thus, Nakamura’s system and operation is dependent upon a response from a “participant”. In Nakamura a “participant” means a person, as shown by the following text:

On the other hand, participants access server 110 through network 120 by utilizing terminal apparatus 130, 140, 150, . . .³

Nakamura’s operation is totally lacking in any second workflow engine that alone completes the workflow. Applicants’ claimed subject matter is clearly different. In Nakamura, the relevant workflow would remain idle until a human participant got around to inputting data into a terminal.

No Prima Facie Case of Obviousness Has Been Established.

Thus, Applicants assert that a *prima facie* case of obviousness has not been established, because the references, whether considered individually or combined in the manner suggested by the Examiner, fail to disclose all of the elements as recited in Applicants’ claims.

For the above reasons, independent claim 1 should be found to be allowable over any combination of Campbell, Sasou, or Nakamura, and Applicants respectfully request that the rejection of claim 1 under 35 U.S.C. ' 103(a) as being unpatentable over Campbell in view of Sasou and Nakamura should be withdrawn.

If an independent claim is nonobvious under 35 U.S.C. ' 103, then any claim depending therefrom is nonobvious.⁴

Claims 2-8, which depend from claim 1, directly or indirectly, and incorporate all of the limitations therein, are also asserted to be allowable for the reasons presented above.

² Nakamura, Para. [0098].

³ Nakamura, Para. [0072].

⁴ MPEP '2143.03.

Independent claims 9, 17, 22, 27, and 32 recite similar limitations to those recited in claim 1, so they should likewise be found patentable over any combination of Campbell, Sasou, and Nakamura. Further, all of the claims dependent, directly or indirectly, from independent claims 9, 17, 22, 27, and 32 should also be found allowable.

Response to the Examiner's Arguments

The Examiner asserts that Applicants defined “explicit and delayed acknowledgement” to be a notification when the final task is completed.⁵ However, this is not the full story.

Applicants defined “delayed acknowledgement” to mean a notification only upon the successful completion of the final task. Refer to the following text:

Acknowledgement message ACK_A to client process A may be referred to as a “delayed acknowledgement message”, because such acknowledgement message is only sent to client process A upon the successful completion of the final task T_{FT} by workflow 72.⁶

Additional Elements and Limitations

Applicants consider additional elements and limitations of the rejected pending claims to further distinguish over the cited references, and Applicants reserve the right to present arguments to this effect at a later date.

Reservation of Rights

In the interest of clarity and brevity, Applicants may not have addressed every assertion made in the Office Action. Applicants' silence regarding any such assertion does not constitute any admission or acquiescence. Applicants reserve all rights not exercised in connection with this response, such as the right to challenge or rebut any tacit or explicit characterization of any reference or of any of the present claims, the right to challenge or rebut any asserted factual or legal basis of any of the rejections, the right to swear behind any cited reference such as provided under 37 C.F.R. § 1.131 or otherwise, or the right to assert co-ownership of any cited reference. Applicants do not admit that any of the cited references or any other references of record are relevant to the present claims, or that they constitute prior art. Applicants reserve all rights to

⁵ Office Action, Para. 6.

⁶ Specification, page 8, lines 10-13.

AMENDMENT AND RESPONSE UNDER 37 CFR § 1.111

Serial Number: 09/876,645

Filing Date: June 7, 2001

Title: FAULT-TOLERANT SYSTEM AND METHODS WITH TRUSTED MESSAGE ACKNOWLEDGMENT (As Amended)

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Dkt: 884.439US1

pursue any cancelled claims in a subsequent patent application claiming the benefit of priority of the present patent application, and to request rejoinder of any withdrawn claim, as required by MPEP § 821.04.

Conclusion

Applicants respectfully submit that claims 1-36 are in condition for allowance, and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicants' attorney, Walter W. Nielsen (located in Phoenix, Arizona) at (602) 298-8920, or the below-signed attorney (located in Minneapolis, Minnesota) to facilitate prosecution of this application.

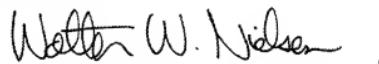
If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

MINGQIU SUN ET AL.

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